1 VQE results Aer Estimator (With Shots)

			(Full Hamiltonian)		Double Well	$\Lambda = 4$		COYBLA Max 10k Iterations			
Ansatz	Tolerance	Shots	Converged runs	Mean iter	VQE min E.	σ_{min}	Δ_{min}	VQE median E.	Δ_{median}	Exact	Time
RA r1 rl	1e−01	10000	100/100	32	9.356e−01	4.8549e−02	2.9036e−02	1.2521e+00	3.4554e−01	9.0656e−01	00h 19m 10s
RA r1 rl	1e−02	10000	100/100	44	9.421e−01	5.174e−02	3.5536e−02	1.2021e+00	2.9554e−01	-	00h 25m 07s
RA r1 rl	1e−03	10000	100/100	56	8.989e−01	4.4661e−02	−7.6586e−03	1.1658e+00	2.5922e−01	-	00h 31m 29s
RA r1 rl	1e−04	10000	100/100	70	8.8114e−01	5.1221e−02	−2.5424e−02	1.3049e+00	3.9835e−01	-	00h 36m 50s
RA r1 rl	1e−05	10000	100/100	79	8.8148e−01	4.6884e−02	−2.5079e−02	1.1873e+00	2.8073e−01	-	00h 39m 53s
RA r1 rl	1e−06	10000	100/100	88	9.1367e−01	4.4895e−02	7.1118e−03	1.2174e+00	3.1086e−01	-	00h 44m 55s
RA r1 rl	1e−07	10000	100/100	103	9.1986e−01	5.0784e−02	1.3301e−02	1.2295e+00	3.2289e−01	-	00h 52m 15s
RA r1 rl	1e−08	10000	100/100	112	9.1909e−01	5.1593e−02	1.2533e−02	1.1936e+00	2.8704e−01	-	00h 57m 15s
Ansatz	Tolerance	Shots	Converged runs	Mean iter	VQE min E.	σ_{min}	Δ_{min}	VQE median E.	Δ_{median}	Exact	Time

Table 1